Polarizer/Diffuser Mounting Slots

High-Intensity LEDs

Aluminum Backplate

5-Pin M12 Connector (Male)

Four Mounting Holes

Power Indicator LED (Green)

Signal Indicator LED (Yellow)

Warranty	Compliant	Compliant	Rated	Connector
10 YEAR	**IEC** 62471	**CE** RoHS	**IP** 50	5-PIN M12

PRODUCT HIGHLIGHTS

- ✓ 5-pin M12 quick connect
- ✓ Built-in smart driver
- ✓ PNP and NPN trigger signal input

PRODUCT INTRODUCTION

The SC75 is the basic spot light version of the S75 Brick Light. It features a built-in smart driver. NPN or PNP trigger signals can be used to control the on/off input of the light. A 75 mm active light area provides an intense and diffuse light pattern at any given working distance.

PRODUCT SPECIFICATIONS

Electrical Input	24VDC +/−5%
Input Current	Max. 375 mA
Wattage	Max. 9.0 W
On/Off Input	PNP : +4VDC or greater to activate	NPN : GND (<1VDC) to activate
PNP Line	4 mA @ 4VDC	10 mA @ 12VDC	20 mA @ 24VDC
NPN Line	15 mA @ gound (0VDC)
Yellow Indicator LED	LED strobe indicator ON = light active
Green Indicator LED	ON = power
Continuous Mode	NPN can be tied to ground **OR** PNP can be tied to 24VDC (not both).
Connection	5-pin M12 connector
Ambient Temperature	-18º–40ºC (0º–104ºF)
IP Rating	IP50
Weight	~155 g
Compliances	CE, RoHS, IEC 62471
Warranty	10 years. For complete warranty information, visit smartvisionlights.com/warranty.

WIRING CONFIGURATION
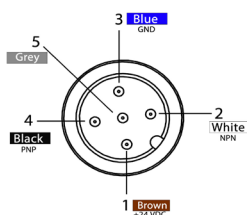
Pin layout for light (male connector)

Pin	Function	Signal	Wire Color
1	Power In	+24VDC	BROWN
2	NPN	Sinking Signal	WHITE
3	GND	Ground	BLUE
4	PNP	Sourcing Signal	BLACK
5	N/C	N/C	GREY*

* Some cables use green/yellow for pin 5
For continuous mode: Tie PNP (pin 4) to +24VDC (pin 1) **or** tie NPN (pin 2) to ground (pin 3).

MAXIMUM INTENSITY
Light is set to maximum intensity.
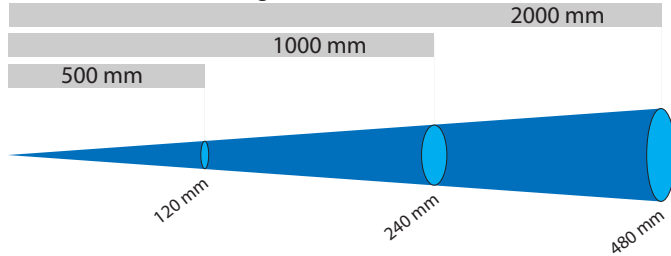It is not adjustable.

RESOURCE CORNER

Additional resources, including CAD files, videos, and application examples, are available on our website.
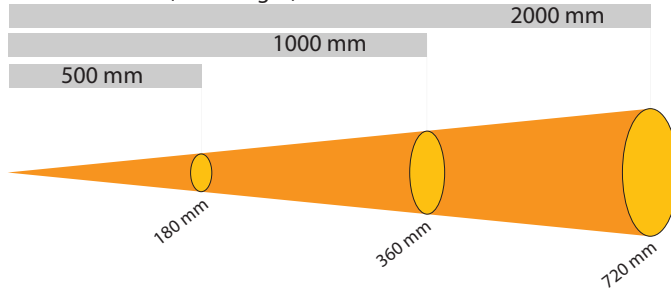
LIGHT PATTERNS

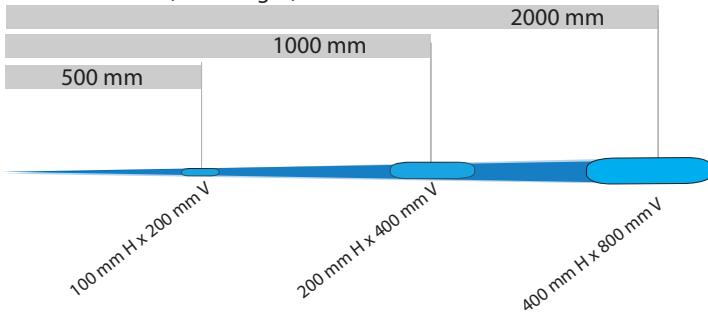Smart Vision Lights recommends that the SC75 be used at a working distance between 300 mm and 4000 mm.

Beam Diameter (White Light) — 5700K

LIGHTING PATTERN FOR THE SC75 with Narrow (Standard) Lenses

Working Distance mm (inches)	Pattern (80%–100% measured intensity) mm (inches)
500 mm (19.7")	120 mm (~4.7") D
1000 mm (39.4")	240 mm (~9.4") D
2000 mm (78.8")	480 mm (~18.9") D

| Typical Output Performance	Illuminance (Lux)
Distance = 500 mm	7250
Illuminance measurement taken on White Lights — 5700K	

Beam Diameter (White Light) — 5700K

LIGHTING PATTERN FOR THE SC75 with Wide (W) Lenses

Working Distance mm (inches)	Pattern (80%–100% measured intensity) mm (inches)
500 mm (19.7")	180 mm (~7") D
1000 mm (39.4")	360 mm (~14.2") D
2000 mm (78.8")	720 mm (~28.3") D

Typical Output Performance	Illuminance (Lux)
Distance = 500 mm	6500
Illuminance measurement taken on White Lights — 5700K	

Beam Diameter (White Light) — 5700K

LIGHTING PATTERN FOR THE SC75 with Line (L) Lenses

| Working Distance mm (inches)	Pattern (80%–100% measured intensity) mm (inches)
500 mm (19.7")	100 mm (~3.9") H x 200 mm (~7.8") V
1000 mm (39.4")	200 mm (~7.8") H x 400 mm (~15.7") V
2000 mm (78.8")	400 mm (~15.7") H x 800 mm (~31.5") V

Typical Output Performance	Illuminance (Lux)
Distance = 500 mm	9800
Illuminance measurement taken on White Lights — 5700K	

The SC75 Brick Light produces a uniform light pattern.

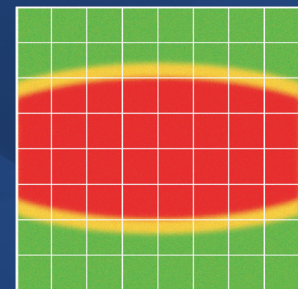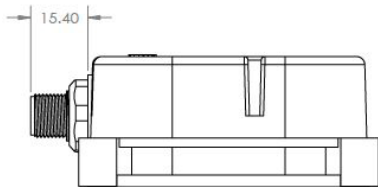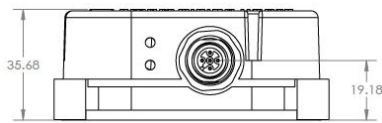Working distance = 500 mm   Grid set to 25 mm x 25 mm
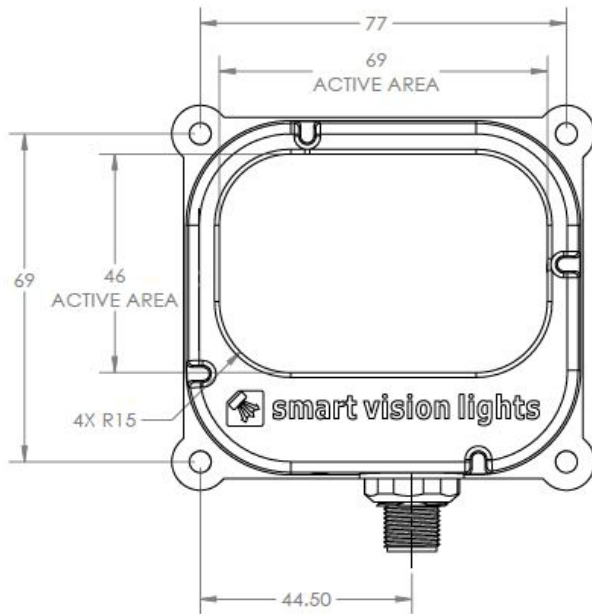

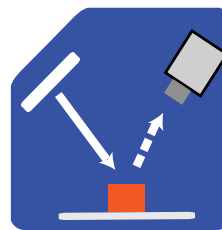175 mm
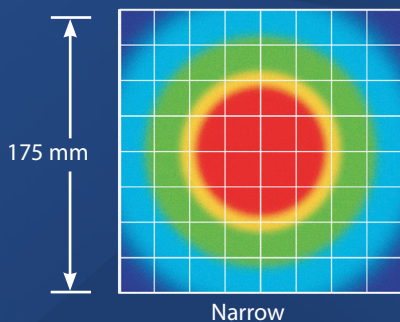
Narrow
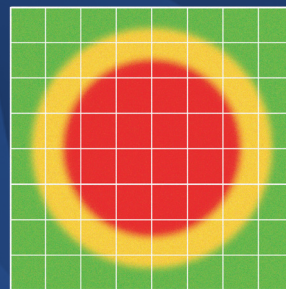
Wide

Line

PRODUCT DRAWING
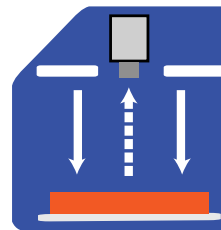
CAD files available on our website.
Dimensions are in mm.

ILLUMINATION

SC75 Series of Brick Lights works best for:

Bright Field   Direct Lighting   Dark Field
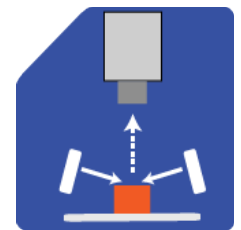
EYE SAFETY

IEC 62471 COMPLIANT

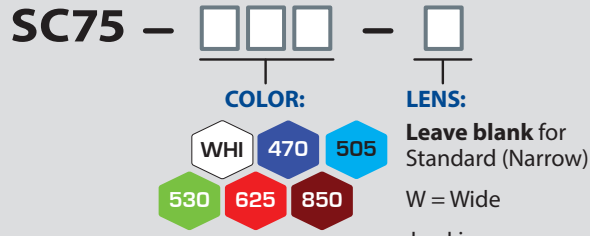According to IEC 62471: 2006. Full documentation available upon request.

Notice
Exempt Group: No photobiological hazard to eyes or skin even for continuous, unrestricted use. Applicable for wavelengths 625, 850, and 940.

Caution
Risk Group 1: Possibly hazardous optical radiation emitted from this product. Do not stare at operating lamp. May be harmful to eyes. Safe for most applications except for prolonged exposure. Applicable for wavelengths 470, 505, 530, and WHI.

PART NUMBER

SC75 — ☐☐☐ — ☐

COLOR:

WHI 470 505
530 625 850

LENS:

Leave blank for Standard (Narrow)

W = Wide

L = Line

Additional wavelengths options available upon request.

Part Number Examples:
SC75-625   S75, 625 Red Wavelength, Standard (Narrow) Lens
SC75-WHI-L   S75, White, Line Lens

LENS OPTICS

NARROW (STANDARD)
Narrow, 14° angle-cone lenses are standard. Standard lenses project a narrow beam of illumination and are used for long working distances.

14°

WIDE
Wide, 30° angle-cone lenses project a large area of illumination. They create a floodlight effect and can be used for short working distances.

30°

LINE
Line, with a 10° width and a 50° fan-angle project a thin, narrow beam of illumination.

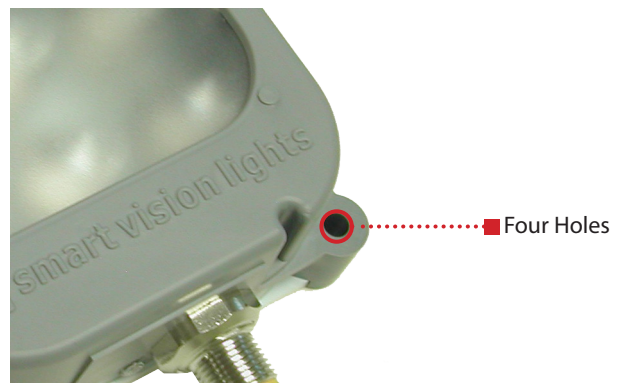10° 50°
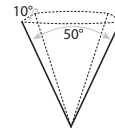
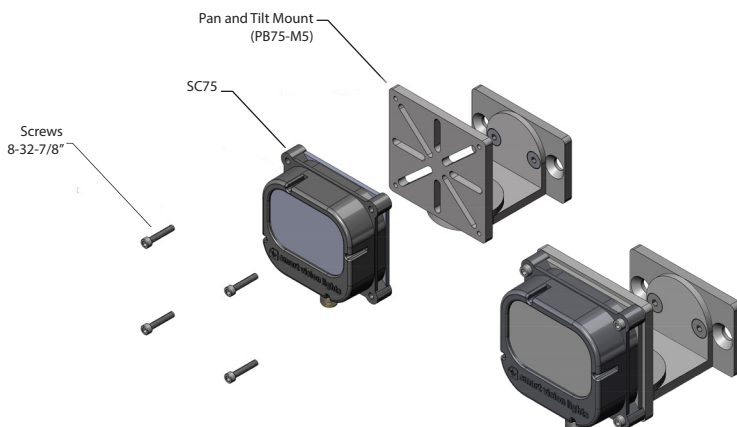*Additional lens options available upon request.*

MOUNTING

The SC75 Brick Light has four holes for mounting.

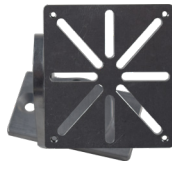Diagram shows pan and tilt mounting (**Part Number: PB75-M5).**

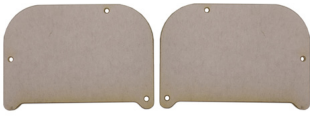See Accessories for additional mounting options.

Pan and Tilt Mount (PB75-M5)

SC75

Screws 8-32-7/8"

Four Holes

ACCESSORIES

Power Cables	
Length	Part Number
5 m	5PM12-5
10 m	5PM12-10
15 m	5PM12-15

Mount	
Description	Part Number
Pan and Tilt Mount	PB75-M5

Diffuser	
Description	Part Number
Diffuser Kit for SC75	S75-DKIT

Polarizer	
Description	Part Number
Polarizer for SC75	S75-LP

GLOSSARY

This glossary covers all Smart Vision Lights product families; some content in this section may not apply to this specific light.

TERMINOLOGY

OverDrive™ Light includes an integrated high-current strobe driver for complete LED light control.
Continuous Operation Light stays on continuously.
Multi-Drive™ Combines continuous operation and OverDrive™ strobe (high-current strobe operation) modes into one easy-to-use light.
**Built-In Driver** The built-in driver allows full function without the need for an external driver.
Camera to Light Connect the light directly to the camera, without the need for additional controllers or equipment.
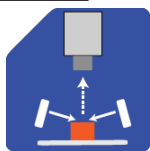**Polarizers** Filters that reduce reflections on specular surfaces.
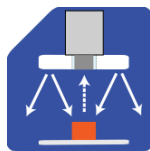**Diffuser** Used to widen the angle of light emission, reduce reflections, and increase uniformity.
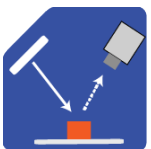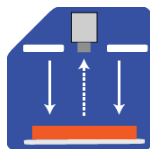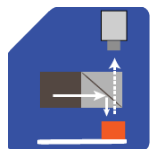
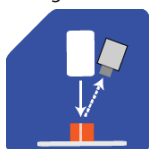## TYPES OF ILLUMINATIONS
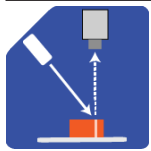
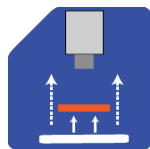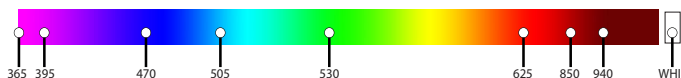Projector, Dark Field, Radial, Bright Field, Direct, Axial, Line, Diffuse Panel, Backlight

COLOR/WAVELENGTHS LEGEND

Wavelength options range from 365 nm to 1550 nm.
Additional wavelengths available for many light families.

365 395 470 505 530 625 850 940 WHI

*See Part Number section for **this light's** available standard wavelengths.*

Shortwave infrared LEDs are available in 1050 nm, 1200 nm, 1300 nm, 1450 nm, and 1550 nm.
*Check Part Number section to see if **this light** is available in SWIR wavelengths.*